



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

**MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION**

11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786)315-2590 F (786) 31525-99

www.miamidade.gov/economy

Johns Manville Corporation
717 17th Street
Denver, CO 80202

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Johns Manville Built-Up Roofing Systems over Recover Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-0129.13 and consists of pages 1 through 20.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 13-0529.12
Expiration Date: 07/19/16
Approval Date: 12/26/13
Page 1 of 20

ROOFING SYSTEM APPROVAL

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Built-up Roofing
<u>Materials:</u>	Fiberglass
<u>Deck Type:</u>	Recover
<u>Maximum Design Pressure:</u>	See Specific Deck Type

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Expand-O-Flash	Various	Proprietary	Expansion joint covers manufactured from non-reinforced, form-supported elastomeric bellows with a bifurcated waterproof attachment to metal flanges. Available in various standard configurations and may be custom manufactured to specific dimensions.
Expand-O-Guard	Various	Proprietary	Elastomeric expansion joint cover for vertical expansion and seismic joints. Manufactured from non-reinforced, form-supported elastomeric bellows with a bifurcated waterproof attachment to metal flanges. Available in various standard configurations and may be custom manufactured to specific dimensions.
FP-10 Vents	10" deck flange, base diameter of 4" and a height of 6".	Proprietary	One-way roof vent, designed for use in various roof systems, for the release of pressure created by gases or moisture vapor trapped within the roofing system.
FesCant Plus Cant Strips, and Taper Edge.	Various	TAS 110	Factory pre-fabricated cant strips and taper edge, manufactured from expanded perlite insulation.
Flex-I-Drain	Various sizes from 3" to 6"	BOCA 76-61 SBCCI 89204 UBC 3236	Two piece flexible drain system composed of a Noryl deck flange, a flexible neoprene bellows and no hub connection. Available in various sizes and styles for most retro-fit applications.
DynaBase	54'-10" x 36"	ASTM D6163 Type I Grade S	An SBS modified bitumen coated, fiber glass reinforced base sheet.
GlasBase Plus	36" x 108'	ASTM D4601	Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
GlasKap	36" x 36	ASTM D3909	Asphalt impregnated and coated felt surfaced with mineral granules used as the top ply in conventional built-up roof membranes.
GlasKap CR	36" x 36'	ASTM D3909	White mineral surfaced, white acrylic coated, fiber glass cap sheet for use as the top ply in conventional built-up roof membranes
GlasKap Plus	39-3/8" x 34'	ASTM D3909	SBS Modified Asphaltic cap sheet used as the top ply in conventional built-up roof membranes.
GlasPly IV	36" x 180'	ASTM D2178 Type IV	Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing.
GlasPly Premier	36" x 180'	ASTM D2178 Type VI	Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing.
GlasTite Flexible	36" x 25' long	ASTM D4601	Asphalt composite flashing with fiberglass scrim and two-ply polyester reinforcement, for use in conventional built-up roofing assemblies for base flashings.
Bestile Industrial Roof Cement	N/A	ASTM D4586 Type II	General purpose medium trowel grade, cement cutback asphalt mastic reinforced with non-asbestos fibers and mineral stabilizers.
MBR Flashing Cement Activator	N/A	Proprietary	Activator component for use with MBR Flashing Cement Base
MBR Flashing Cement Base	N/A	Proprietary	A two-component elastomeric, cold application adhesive, consisting of a modified proprietary compound with an asphalt base.
MBR Bonding Adhesive	N/A	Proprietary	A two-part insulation and membrane adhesive
JM Two-Part Urethane Insulation Adhesive	N/A	Proprietary	A two-part insulation and membrane adhesive.
PermaPly 28	36" x 106'	ASTM D4601	Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing.

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Presto Lok Fascia and Flashing System	Various	TAS 114	A multi-piece fascia and flashing system for built-up and modified bitumen roofing systems manufactured from aluminum or steel. Extender plates available for wide fascia applications. This assembly meets the criteria of FMRC 1-49 for wind resistance perimeter flashing.
Ventsulation Felt	36" x 36'	ASTM D4897 Type II	Heavy duty fiber glass base sheet impregnated and coated on both sides with asphalt with or without fine mineral stabilizer. Surfaced on the bottom side with coarse mineral granules embedded in asphaltic coating.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ENRGY 3, ENRGY 3 25 PSI, ValuTherm, ValuTherm 25 PSI, R-Panel, R-Panel 25 PSI	Isocyanurate Insulation.	Johns Manville
ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ValuTherm CGF, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm 25 PSI	Isocyanurate Insulation with glass reinforced facers	Johns Manville
ENRGY 3 FR	Isocyanurate Insulation with inorganic coated glass reinforced facers; bottom face is premium coated for combustible decks.	Johns Manville
Fesco Foam, Dura Foam	Isocyanurate Insulation with perlite facer	Johns Manville
Retro-Fit Board, DuraBoard	High-density perlite roof insulation.	Johns Manville
Fesco Board	Rigid perlite roof insulation board.	Johns Manville
AC Foam II	Isocyanurate Insulation	Atlas Roofing Corp.
Structodek® High Density Fiber Board Roof Insulation	High density wood fiber insulation board	Blue Ridge Fiberboard, Inc.
DensDeck	Silicon treated gypsum	G-P Products
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
Multi-Max FA-3	Polyisocyanurate foam insulation	Rmax Operating, LLC
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic



APPROVED FASTENERS:**TABLE 3**

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	UltraFast Fastener	Insulation fastener for wood, steel and concrete.		Johns Manville
2.	UltraFast ASAP	Pre-assembled Insulation fastener and plate		Johns Manville
3.	UltraFast 3" Round Metal Plate or UltraFast Square Recessed Metal Plate	Galvalume AZ55 steel plate	3" square 3" round	Johns Manville
4.	UltraFast Plastic Plate	High Density Polyolefin round plate	3" round	Johns Manville
9.	LWC Base Sheet Fastener	Galvanized double spreading leg fastener for securing base sheets to lightweight insulating concrete.		Johns Manville
10.	Polymer Auger Fastener	Glass reinforced Nylon insulation fastener for gypsum & CWF decks.		Johns Manville
11.	Polymer Auger Plate	Galvalume AZ55 steel plate	3" round	Johns Manville
12.	UltraLok	Base sheet fastener with integral Plate.	2.7" dia. plate	Johns Manville

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corp.	3001629	Class 4470	09/10/98
	3D4A4.AM	Class 4470	09/28/98
	3000949	Class 4470	06/05/98
	3001482	Class 4470	08/11/98
	OZ8A9.AM	Class 4470	09/10/98
	3009502	Class 4450	12/21/00
	3009499	Class 4470	04/04/01
	3014090	Class 4470	09/05/02
	3012974	Class 4450	06/03/02
	3011248	Class 4470	11/01/02
	3011057	Class 4470	08/10/01
	3015444	Class 4450	07/11/03
	3026130	Class 4470	04/26/06
	3037540	Class 4450	10/20/10
Trinity ERD	10390A.10.97-1	TAS 114	10/97
	4361-02.04-1	TAS 114	04/97
	10390A.12.97-1	TAS 114	12/97
	10391.01.03	TAS 114	01/29/03
	J7670.06.08	ASTM D3909	06/16/08
Underwriters Laboratories, Inc.	R10167	UL 790	05/27/13
Dynatech Engineering, Inc.	4360.03.95-1	TAS 114	3/95
	4360.03.95-2	TAS 114	3/95
	4361.5.95-1	TAS 114	5/95
Independent Roof Testing & Consultants of South Florida	IRT 99001	TAS 114	1/20/99
	IRT 99002	TAS 114	1/20/99
	IRT 99003	TAS 114	1/20/99
IRT-ARCON, Inc.	02-026	TAS 114	07/26/02
	02-011	TAS 114	02/06/02
PRI Construction Materials Technologies, LLC	JMC-069-02-01	ASTM D3909	06/04/12
	JMC-070-02-01	ASTM D2178 Type IV	04/17/12
	JMC-071-02-01	ASTM D2178 TYPE VI	04/17/12
	JMC-072-02-02	ASTM D4601	06/14/12
	JMC-072-02-03	ASTM D4601	06/14/12
	JMC-074-02-01	ASTM D4897 Type II	04/17/12
	JMC-093-02-01	ASTM D4601 TYPE II	08/02/12
	JMC-107-02-01 Rev 2	ASTM D903	08/19/13
		ASTM D1876	
		ASTM D5147	
		TAS 117(B)	
		TAS 117(A)	
		TAS 114(C)	



APPROVED ASSEMBLIES

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System limitations apply.

Anchor Sheet: One ply of GlasBase Ply, PermaPly 28, GlasPly Premier, GlasPly IV or Ventsulation Felt mechanically fastened with any approved fasteners and plate listed herein spaced 9" o.c. at the lap and in two rows staggered 12" in the field of the sheet.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, Fesco Foam, DuraFoam Minimum 1" thick	N/A	N/A
Retro-Fit Board, DuraBoard Minimum ½" thick	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) Install one ply of GlasBase Plus, PermaPly 28, GlasPly Premier or GlasPly IV directly over the top layer of insulation. Adhere in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier Ply VI adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover

Deck Description: Concrete

System Type A(2): All layer of insulation adhered to a primed roof membrane. Membrane is subsequently fully or partially adhered.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI		
Minimum 1.5 thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board, DuraBoard		
Minimum ¾" thick	N/A	N/A

Note: All layers of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft² or MBR Bonding Adhesive in 1-½" wide beads at maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAs 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) One ply of GlasBase Plus, PermaPly 28, GlasPly Premier or GlasPly IV Base Sheet adhered to the insulated substrate in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier Ply VI adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -120 psf. (See General Limitation #9).

Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(3): All layers of insulation adhered.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, ACFoam II, ISO 95+ GL, Multi Max FA-3		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Fesco Board		
Minimum ¾" thick	N/A	N/A

Note: All layers of insulation shall be adhered with JM Urethane Insulation Adhesive in ½" wide beads at maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAs 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) PermaPly 28, GlasBase Plus, DynaBase, GlasPly Premier or GlasPly IV applied to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier ply sheet adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -112.5 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(4): All layers of insulation adhered.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, ACFoam II, ISO 95+ GL, Multi Max FA-3		
Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall be adhered with JM Urethane Insulation Adhesive in ½" wide beads at maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) PermaPly 28, GlasBase Plus, DynaBase, GlasPly Premier or GlasPly IV applied to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier ply sheet adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -157.5 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete

System Type A(5): All layers of insulation adhered.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, ACFoam II, ISO 95+ GL, Multi Max FA-3		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, Approved High Density Wood Fiberboard, Structodek High Density Fiber Board Roof Insulation		
Minimum ¾" thick	N/A	N/A

Note: All layers of insulation shall be adhered with JM Urethane Insulation Adhesive in ½" wide beads at maximum spacing of 12" o.c. Please refer to Roofing Application Standard RAs 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) PermaPly 28, GlasBase Plus, DynaBase, GlasPly Premier or GlasPly IV applied to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier ply sheet adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -105 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete with an existing mineral cap sheet

System Type A(6): All layers of insulation adhered.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, ACFoam II, ISO 95+ GL, Multi Max FA-3		
Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall be adhered with JM Urethane Insulation Adhesive in ½" wide beads at maximum spacing of 6" o.c. Please refer to Roofing Application Standard RAs 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) PermaPly 28, GlasBase Plus, DynaBase, GlasPly Premier or GlasPly IV applied to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies (three plies required if neither a base sheet nor a cap sheet is used) of GlasPly IV or GlasPly Premier ply sheet adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -172.5 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type A(7): Anchor sheet adhered with approved asphalt; all layers of insulation adhered with approved asphalt.

All General and System limitations apply.

Anchor Sheet: One ply of one of Ventsulation Felt, GlasBase Plus or PermaPly 28 in a spot mopping of approved asphalt, 12" diameter circles at a spacing of 24" o.c. at a rate of 12 lbs./sq.

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, Fesco Foam, DuraFoam Minimum 1" thick	N/A	N/A
Fesco Board Minimum ¾" thick	N/A	N/A
Retro-Fit Board, DuraBoard Minimum ½" thick	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) Install one ply of GlasBase Plus, GlasPly Premier, GlasPly IV or PermaPly 28 directly over the top layer of insulation. Adhere in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type A(8): All layers of insulation adhered with approved asphalt.

All General and System limitations apply.

One or more layers of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI, Fesco Foam, DuraFoam Minimum 1" thick	N/A	N/A
Fesco Board Minimum ¾" thick	N/A	N/A
Retro-Fit Board, DuraBoard Minimum ½" thick	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.

Base Sheet: (Optional) Install one ply of GlasBase Plus, GlasPly Premier, GlasPly IV or PermaPly 28 directly over the top layer of insulation. Adhere in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install one the following:
1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: BUR

Deck Type 7I: Recover, Insulated

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type C: All layers of insulation simultaneously fastened.

All General and System limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI		
Minimum 1.4" thick	N/A	N/A
Fesco Foam, DuraFoam		
Minimum 1.5" thick	N/A	N/A
Fesco Board		
Minimum ¾" thick	N/A	N/A
Retro-Fit Board, DuraBoard		
Minimum ½" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, ENRGY 3 25 PSI, ENRGY 3 CGF, ENRGY 3 CGF 25 PSI, ENRGY 3 AGF, ENRGY 3 AGF 25 PSI, ENRGY 3 FR, ENRGY 3 FR 25 PSI, ValuTherm, ValuTherm 25 PSI, ValuTherm CGF, ValuTherm CGF 25 PSI, ValuTherm AGF, ValuTherm AGF, 25 PSI, R-Panel, R-Panel 25 PSI		
Minimum 1.3" thick	1 with 3 or 4, 5 with 7 or 8, 2 or 6	1:2 ft ²
Fesco Board		
Minimum ¾" thick	1 with 3 or 4, 5 with 7 or 8, 2 or 6	1:2 ft ²
Retro-Fit Board, DuraBoard		
Minimum ½" thick	1 with 3 or 4, 5 with 7 or 8, 2 or 6	1:2 ft ²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional) Install one ply of DynaBase, GlasBase Plus or PermaPly 28 directly over the top layer of insulation. Adhere in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If base sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. If ply sheet is applied directly to polyisocyanurate insulation only a spot or strip mopped application as detailed in this approval is approved; **See General Limitation #4 Maximum Design Pressure -45 psf. applies.**

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type:	BUR
Deck Type 7:	Recover
Deck Description:	Concrete/lightweight concrete/cementitious wood fiber/wood/steel
System Type E(1):	Base sheet mechanically fastened.
Base Sheet:	One ply of PermaPly 28, DynaBase, or GlasPly Premier fastened to the deck as described below:
Fastening:	<p>(Gypsum decks): GlasPly Premier Fasten base sheet with ES Products Twin Loc-Nail fasteners spaced 9" o.c. at the 3" side lap and two rows staggered 12" o.c. in the field. (Maximum Design Pressure -75 psf. - See General Limitation #7.)</p> <p>(Cementitious wood fiber decks): GlasPly Premier Fasten base sheet with ES Products Twin Loc-Nail fasteners spaced 9" o.c. at the 3" side lap and two rows staggered 12" o.c. in the field. (Maximum Design Pressure -82.5 psf. - See General Limitation #7.)</p> <p>(Lightweight concrete decks): Fasten base sheet with ES Products Twin Loc-Nail fasteners spaced 9" o.c. at the 4" side lap and two rows staggered 9" o.c. in the field. (Maximum Design Pressure -60 psf. - See General Limitation #7.)</p> <p>(Lightweight concrete decks): DynaBase Fasten base sheet with ES Products 1.8" Twin Loc-Nail fasteners spaced 9" o.c. at the 4" side lap and two rows staggered 9" o.c. in the field. (Maximum Design Pressure -75 psf. - See General Limitation #7.)</p>
Ply Sheet:	Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Cap Sheet:	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
Surfacing:	<p>(Required if no cap sheet is used) Install the following:</p> <ol style="list-style-type: none"> 1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.
Maximum Design Pressure:	See Fastening Options Above

Membrane Type: BUR

Deck Type 7: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type E(2): Base sheet mechanically fastened.

All General and System limitations apply.

Base Sheet: One ply of one of Ventsulation Felt, GlasBase Plus, PermaPly 28, GlasPly Premier, GlasPly IV mechanically fastened with any approved fasteners and plate listed herein spaced 9" o.c. at the lap and in two rows staggered 12" in the field of the sheet.

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: BUR

Deck Type 7: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type F: Base sheet adhered with approved asphalt.

All General and System limitations apply.

Base Sheet: One ply of one of Ventsulation Felt, GlasBase Plus or PermaPly 28 in a spot mopping of approved asphalt, 12" diameter circles, 24" o.c. at a rate of 12 lbs./sq.

Ply Sheet: Two or more plies of GlasPly IV or GlasPly Premier adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus adhered in a full mopping of hot asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install the following:

1. Flood coat and gravel/slag with an application rate of 60 lbs./sq. & 400 lbs./sq., respectively.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

